

**PATENT**  
Atty. Dkt. No. 2685/5434 (2000-0093)

**IN THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A system for exchanging information on a network, comprising:
  - a switch coupled to a plurality of ports port;
  - an address table;
  - a computer having an address, said computer coupled to one of said plurality of ports said port; and
  - a private network assigned to said one of said plurality of ports port connected to said computer by said switch according to said address table, wherein said computer communicates with said private network via said one of said plurality of ports and said switch.
2. (Original) The system of claim 1, wherein said private network is a virtual local area network.
3. (Original) The system of claim 1, wherein said address table is stored at said switch.
4. (Original) The system of claim 1, wherein said address table includes an address to identify said computer.
5. (Original) The system of claim 4, wherein said address is a media access control address.
6. (Currently Amended) The system of claim 1, wherein said switch includes a wire to said one of said port plurality of ports.

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7. (Original) The system of claim 1, further comprising an Ethernet switch for controlling an Ethernet network.
8. (Original) The system of claim 1, further comprising a broadband connection connecting said network with an external virtual private network.
9. (Currently Amended) A method for communicating over a network from a plurality of ports, the method comprising:  
issuing a data packet having an address from a computer connected to a port one of a plurality of ports;  
determining a network accessible by said computer according to an address table using said address; and  
assigning said network to said one of said plurality of ports port by a switch coupled to said plurality of ports, wherein said computer communicates with said network via said one of said plurality of ports and via said switch.
10. (Currently Amended) The method of claim 9, further comprising determining if said one of said plurality of ports port is assigned.
11. (Original) The method of claim 9, further comprising accessing said address table containing said address.
12. (Original) The method of claim 11, further comprising updating said address table.
13. (Currently Amended) The method of claim 9, further comprising unassigning said one of said plurality of ports port when said computer is disconnected from said network.
14. (Original) The method of claim 9, further comprising sending an alarm message when said address does not correspond to said network.

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15. (Currently Amended) The method of claim 9, further comprising receiving data from said network at said one of said plurality of ports port.

16. (Currently Amended) The method of claim 9, further comprising accessing shared resources from said one of said plurality of ports port.

17. (Currently Amended) A method for assigning an external network to one of a plurality of ports a-port using a switch, comprising:

receiving data from said external network;

sending a data packet to said one of said plurality of ports port;

retrieving an address from said one of said plurality of ports port in response to said data packet;

creating a virtual network correlating to said external network; and

assigning said virtual network to said one of said plurality of ports port according to said address, wherein communication between said virtual network and one of said plurality of ports occurs via said switch.

18. (Original) The method of claim 17, further comprising finding said address in an address table at said switch.

19. (Original) The method of claim 17, wherein said receiving step includes receiving said data via an Ethernet hub.

20. (Currently Amended) A switch coupled to a broadband connection, and connected to a plurality of ports, comprising:

an address table listing addresses that correspond to a plurality of private networks; and

a switch fabric coupled to said plurality of ports to support said plurality of private networks; and

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a computer connected to one of said plurality of ports and assigned to one of said plurality of private networks, wherein said computer communicates with said one of said plurality of private networks via said one of said plurality of ports and via said switch.

21. (Original) The switch of claim 20, further comprising a memory that stores said address table.

22. (Original) The switch of claim 20, wherein said addresses are deleted and added to said address table.

23. (Currently Amended) A switch that assigns ports, said switch coupled to a computer-readable medium, said computer-readable medium having instructions stored thereon, the instructions comprising steps for:

receiving data from an external network;

sending a data packet to one of a plurality of ports connected to a computer a port;

retrieving an address from said one of said plurality of ports port in response to said data packet;

creating a virtual network correlating to said external network; and

assigning said virtual network to said one of said plurality of ports port according to said address, wherein said computer communicates with said virtual network via said one of said plurality of ports and via said switch.

24. (Currently Amended) The switch of claim 23, further comprising switch fabric coupling said switch to said plurality of ports.

25. (Currently Amended) A broadband connection system, comprising:

an Ethernet hub for supporting virtual private networks; and

a switch having an address table to assign one of said virtual private networks to one of a plurality of ports connected to a computer according to an address table.

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wherein said computer communicates with said one of said virtual private networks via said one of said plurality of ports and via said switch.

26. (Currently Amended) The broad band connection system of claims 25, further comprising said plurality of ports coupled to said switch, wherein said virtual private networks are assigned to said one of said plurality of ports.

27. (Currently Amended) The broad band connection system of claim 25, further comprising an address stored in said address table, said address correlating to said one of said virtual private networks.

28. (Currently Amended) A method for exchanging information over a virtual local area network at one of a plurality of ports a port, comprising:

coupling a computer at said one of said plurality of ports port;  
style="margin-left: 40px;">issuing a data packet having an address from said computer to a switch;  
style="margin-left: 40px;">identifying said virtual local area network according to said address;  
style="margin-left: 40px;">assigning said virtual local area network to said one of said plurality of ports port;  
style="margin-left: 40px;">accessing said virtual local area network with said computer at said one of said plurality of ports port via said one of said plurality of ports and via said switch; and  
style="margin-left: 40px;">exchanging information over said virtual local area network from said computer to a virtual private network, wherein said virtual private network corresponds to said address.

29. (Original) The method of claim 28, wherein said identifying includes accessing an address table at said switch, said address table storing said address corresponding to said virtual local area network.

30. (Currently Amended) The method of claim 28, further comprising revoking access at said one of said plurality of ports port when said virtual local area network is terminated.

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31. (Original) The method of claim 28, further comprising blocking said computer from said virtual local area network when said address is not identifiable by said switch.

32. (Currently Amended) A system for exchanging information from a plurality of ports to external private networks, comprising:

a switch coupled to said plurality of ports, said switch including an address table;  
a virtual local area network created by said switch according to an address in said address table, and assigned to a port of said plurality of ports;  
a computer coupled to said port, said computer including said address correlating to said virtual local area network; and

a modem coupled to said switch via an Ethernet hub, said modem to exchange information from said virtual private network assigned to said port to an external virtual private network corresponding to said computer, via said port and via said switch.

33. (Original) The system of claim 32, further comprising a broadband connection to said modem, said broadband connection including said external virtual private network.

34. (Original) The system of claim 32, wherein said address table is stored as a file.

35. (Original) The system of claim 32, further comprising a private port coupling said virtual local area network to said switch.